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□54□Title: Improved Ratchet Wheel Driving Structure for Ratchet Wrench

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(50)名 布：棘輪扳手棘輪驅動結構之改良

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[57] 申請專利範圍：

1. 一組棘輪扳手棘輪驅動結構之改良，主要包括一握柄，該握柄一端設有一頭部，該頭部裡面設有一容置空間可供轉動地容置一驅動頭，該驅動頭在其週側設有一些齒，一封罩爪設置在該頭部裡面可供齒合該驅動頭的齒，並且可以分別以一軸心為軸做轉動的動作，一撥動塊轉動地設置在該頭部裡面而且其係設置在該兩掣爪之間，以便可以撥動該兩掣爪以控制該兩掣爪之咬合該驅動頭的情形，一封罩爪設置在該頭部裡面而可以將該封罩爪推向該撥動塊而可以結合該撥動塊，其特徵係在於：其更包括至少一環形元件轉動地結合至該驅動頭上，該環形元件周側設有至少一第一撥動齒，以及至少一撥動輪固定至該撥動塊一端並且和該撥動塊一起轉動，該撥動輪具有至少一第二撥動齒可供齒合該環形元件的第一

撥動齒，使得該環形元件的旋轉動作可以驅使該撥動輪和撥動塊轉動，並且進而可以控制該兩掣爪之咬合該驅動頭的齒的情形，其中該環形元件具有較大的體積而可以更方便操作者。

2. 根據申請專利範圍第1項所述之棘輪扳手棘輪驅動結構之改良，其中該頭部可以設有一限制塊，該環形元件可以更設有一弧形溝槽可供嵌合該限制塊以便限制該環形元件的旋轉角度。

圖示簡單說明：

第一圖係為一棘輪扳手棘輪驅動結構改良的分解圖；

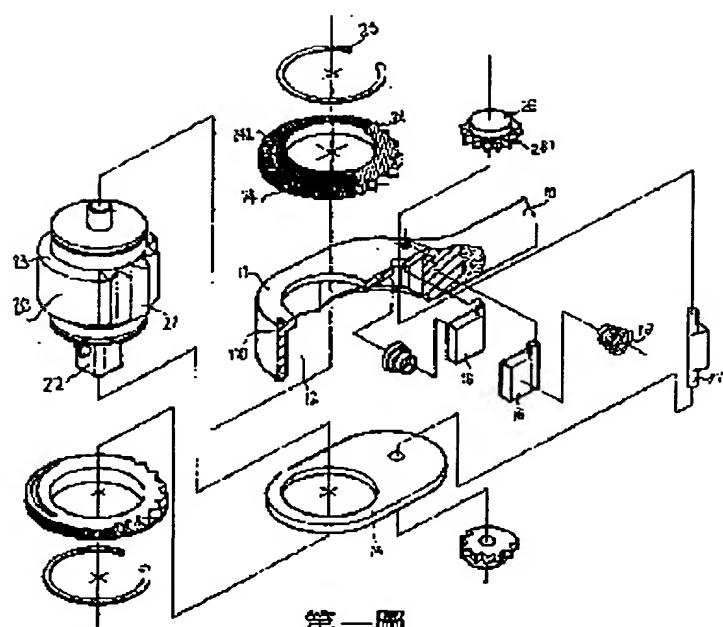
第二圖係為該扳手頭部的頂面部份剖視圖；以及

第三圖和第四圖係為這種棘輪扳手棘輪驅動結構之改良的立體部份剖視動作示意圖；

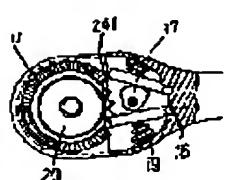
第五圖係為該扳手之操作動作示意圖。

20.

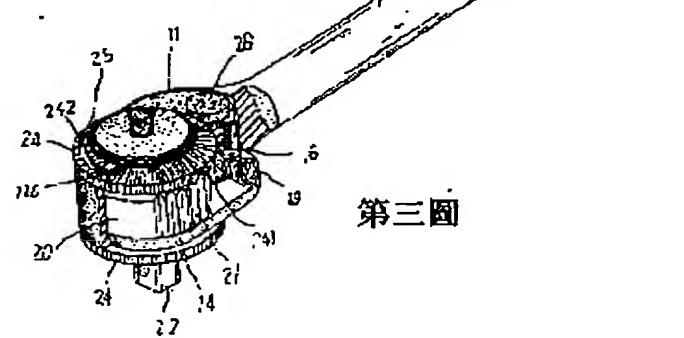
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第一圖

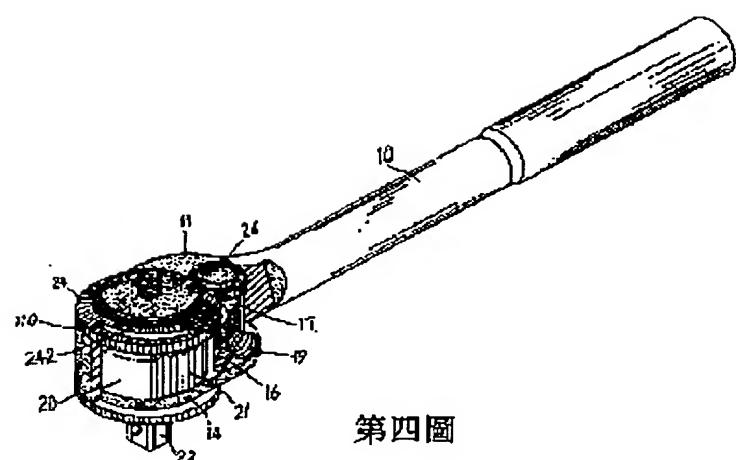


第二圖

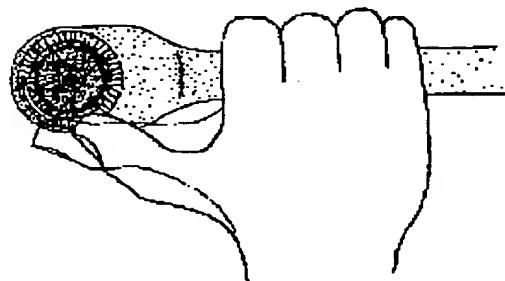


第三圖

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第四圖



第五圖

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IMPROVED RATCH WHEEL DRIVING STRUCTURE FOR RATCHET WRENCH

Abstract:

An improved ratchet wheel driving structure for ratchet wrench is disclosed to include a head accommodating a driving member having teeth, a pair of pawls engeable with the teeth of the driving member, a switching block provided between the pawls for moving the pawls, an annular member rotatably coupled to the driving member and having a driving tooth, the annular member having a big dimension for easy operation, a wheel fixedly fastened to the switching block for synchronous rotation and having a tooth for engaging the tooth of the annular member for enabling the annular member to drive the wheel and the switching block and to further control the engagement between the pawls and the driving member, and a limiter block provided at the head for engaging an arched groove at the annular member to limit the angle of rotation of the annular member.

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